

ABSTRACT

A composite structure that can serve as a cushion or fender piling for moored or passing ships includes an elongate tubular member having a radially projecting resilient cushion extending over an upper portion of its length. In one embodiment, the material of the cushion also fills the tubular member, encapsulating an upper extremity of the tubular member. In another embodiment, the tubular member is filled with a different material such as concrete, and the material of the cushion can also encapsulate upper extremities of both the tubular member and the different filler material. Optionally, a reinforcing member such as a helically formed length of reinforcing bar engages an inside surface of the tubular member for resisting inward deflection of the tubular member when the piling is subjected to high bending and shear loading.